

A CROSS-SECTIONAL INVESTIGATION OF THE EFFECTS OF REGIONAL LABOR MARKET CONDITIONS ON THE REENLISTMENT DECISIONS OF AIR FORCE ENLISTEES

THESIS

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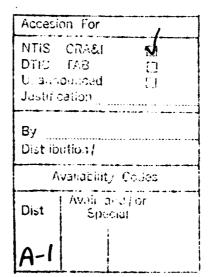
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A CROSS-SECTIONAL INVESTIGATION OF THE EFFECTS OF REGIONAL LABOR MARKET CONDITIONS ON THE REENLISTMENT DECISIONS OF AIR FORCE ENLISTEES

#### THESIS

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#### Abstract

A great deal of literature measuring the relationship between labor market perceptions and voluntary employee turnover exists. However, literature measuring the relationship between general labor market conditions and voluntary employee turnover is scarce. Moreover, to date only one article has included both labor market perceptions and general labor market conditions in testing a voluntary turnover model. This thesis provides a second test of a proposed voluntary turnover model that incorporates both labor market perceptions and general labor market conditions.

Using survey data collected by Flores in 1984 and reenlistment data collected by Hoene in 1986, a cross-sectional investigation of the effects of general labor market conditions, as measured by regional unemployment rates, on the reenlistment decisions of first-term Air Force enlistees was conducted. Additionally, the effects of labor market perceptions, cognitive ability, and tenure on reenlistment decisions were examined. A model of voluntary employee turnover was developed and tested. One of seven hypotheses was supported, providing little support for the proposed model.

A CROSS-SECTIONAL INVESTIGATION OF THE EFFECTS OF REGIONAL LABOR MARKET CONDITIONS ON THE REENLISTMENT DECISIONS OF AIR FORCE ENLISTEES

#### I. Introduction

Employee turnover is a naturally occurring phenomenon in all organizations. The United States Department of Labor's monthly publication of the <u>U.S. Bureau of Labor Statistics</u> reveals that people continually leave all types of occupations from all geographical regions. Flanagan, Smith, and Ehrenberg (1984) report that "25 percent of all workers change the industry in which they work over a three year period" (p. 232). There are many forces driving this naturally occurring phenomenon. One such force is the economy.

According to March and Simon (1958), "under nearly all conditions, the most accurate single predictor of labor turnover is the state of the economy" (p. 100). Economic literature states that when labor markets are tight (i.e., jobs are more plentiful relative to job seekers), voluntary employee turnover is high. Likewise, when labor markets are loose (i.e., jobs are scarce), voluntary employee turnover is low (Parsons, 1977). For example, Reynolds (1951) reports that during the 1948-1949 recession, the average voluntary employee turnover rate in 39 companies dropped from 3.5% per month to 1.6% per month.

In addition to the economic forces, there are personal forces driving the natural phenomenon of employee turnover. March and Simon (1958) report that the primary factor motivating employees to leave an organization is lack of job satisfaction. According to Flanagan et al. (1984), lower paid employees who can obtain higher wages elsewhere are most likely to quit their current jobs. Perceived availability of alternative jobs may also affect an employee's decision to leave an organization (Mobley, 1977). Additionally, employees may leave an organization for personal reasons such as raising a family.

The organization is another force that affects employee turnover. According to Mobley (1982), organizational factors influencing turnover include pay, organization size, job design (i.e., routinization, autonomy, and responsibility), and supervisory style. Baldwin and Daula (1985b) report that reenlistment decisions are based on pecuniary (e.g., compensation) and nonpecuniary (e.g., promotion speed) returns expected from alternative organizations.

The forces described thus far are only some of the forces that drive employee turnover. However, it is evident that these forces (i.e., economic, individual, and organizational) are dynamic, changing continually. Consequently, employee turnover occurs naturally and frequently within all organizations including the United States Air Force.

With the end of the draft in the early 1970s, the Air Force began to compete in the nation's labor markets to fill its manpower requirements (Baldwin, Daula, & Smith, 1985). According to Mobley (1982), the Department of Defense reports that attrition rates among first-term enlisted personnel in the Air Force, Army, Navy, and Marines have exceeded 30 percent per year for entering recruits since 1973. Similarly, Flores (1984) found that 59% of first-term Air Force enlistees did not reenlist for a second term.

Currently, the Air Force is experiencing a large turnover of personnel stemming from the implementation of the Defense Management Review (DMR) recommendations. As of fiscal year (FY) 1987, the Air Force consisted of 607,000 military employees not including civilian employees hired by the Department of Defense (U.S. Force in Facts and Figures, 1991). By FY 1992, the number of military employees is projected to be reduced by 21,700 (U.S. Force in Facts and Figures, 1991), and by FY 1995, the total Air Force is projected to consist of 437,000 military employees (Force Facts, 1991). The end result is an expected force reduction of 170,000 military personnel permanently leaving the Air Force over an eight year period.

Although some personnel will be involuntarily separated from the Air Force, others will leave voluntarily through separation rollbacks and voluntary early release programs.

Currently, the <u>Skywriter</u> (June 7, 1991) reports that the United States Air Force has instituted its 10th consecutive

annual voluntary early release program for first-term airmen stationed in the continental United States. This FY 1991 program is expected to produce 2800 voluntary separations in July 1991. Since "formal" voluntary employee turnover programs are being used to reduce the number of Air Force employees, it is vitally important for the Air Force to retain its "best" personnel.

Retention of high quality performers is an important concern of the Air Force as it is for many other organizations. The process of turnover can be expensive. Mobley (1982) discovered that it costs the United States Navy approximately 100,000 dollars to produce one high school graduate reenlistment. According to Peskin (1973), "turnover costs American business billions of dollars a year" (p. 68). This high monetary expense includes measurable costs associated with recruitment, selection, orientation, training, and separation (Roseman, 1981; Peskin, 1973; Parsons, 1977). Peskin (1973), however, adds that "no company should try to eliminate turnover completely because incompetent and unwilling workers will accumulate over time and will deter the company from reaching objectives" (p. 69). According to Dalton, Todor, and Krackhardt (1982), attrition of poor performers is costly, but it is also functional to the organization. In contrast, turnover of top performers is both expensive and dysfunctional (Dalton et al., 1982).

In addition to the tangible costs of employee turnover, there are intangible costs that are incurred by an organization when high performers quit. Some of these costs include reduced morale, lower productivity, and increased overtime (Roseman, 1981; Peskin, 1973; Mobley, 1982). For example, as the Air Force continues to cut its personnel, there will be fewer personnel to sustain the current work level. However, by retaining its "best" performers, the United States Air Force will be better equipped to successfully provide a sound national defense while minimizing the intangible costs. Baldwin and Daula (1985a) report that higher quality Army recruits are usually retained longer, and thus, lower attrition offsets a significant part of the higher cost of attracting the recruits to serve in the Army. Similarly, McEvoy and Cascio (1987) found a negative correlation between performance and turnover, suggesting that attrition among good performers is lower than attrition among poor performers. Attracting and retaining quality employees while minimizing both tangible and intangible costs requires effective management of employee turnover.

Managers need to be able to diagnose the causes of turnover, to assess the consequences of turnover, to design and implement policies and programs to deal with turnover, and to evaluate the effectiveness of the changes resulting from retention policies and programs (Mobley, 1982). To

effectively accomplish these tasks, managers must understand the meaning of employee turnover.

"Employee turnover" has been defined from a variety of perspectives to include economic, psychological, sociological, management, accounting, personnel, and industrial relations (Mobley, 1982). This research views employee turnover from a management perspective and an economic perspective.

From a management perspective, there are various definitions of "employee turnover." For example, Mobley (1982) defines employee turnover as "the cessation of membership in an organization by an individual who received monetary compensation from the organization" (p. 10). Price and Mueller (1986) define employee turnover as "the degree of individual movement across the membership boundary" (p. 243).

either involuntary turnover or voluntary turnover.

Involuntary turnover occurs when an employee is forced to terminate his or her organizational membership (Roseman, 1981). This is usually initiated by the organization, but it may also result from death and mandatory retirement (Mobley, 1982). Voluntary turnover occurs when the employee chooses to terminate his or her membership by leaving the organization (Mobley, 1982). One of the most common designations of voluntary turnover is "quits" (Price and Mueller, 1986). Transfers and promotions are not part of

employee turnover since they do not entail movement across the membership boundary of an organization (Price, 1977).

Economists refer to employee turnover as "labor mobility." According to Parnes (1954), labor mobility is defined as, "the actual movement of workers among jobs, between employment and unemployment, or into and out of the labor force" (p. 22). Parnes (1954) further defines the following seven types of movement:

- 1. Interfirm movement, from one firm to another or a change of employer.
- 2. Occupational movement, from one occupation to another.
- 3. Industrial movement, from one industry to another.
- 4. Geographic movement, from one local area to another.
- 5. Movement from unemployed to employed status.
- 6. Movement from employed to unemployed status.
- 7. Movement into and out of the labor force. (p. 24)

Parnes' "interfirm movement" corresponds to the managerial definition of employee turnover (Price, 1977).

The emphasis of the current research is on voluntary turnover of Air Force enlistees. Using survey data that was collected by Flores (1984) and supplemented by Hoene (1986), this study examines the effect labor market factors (i.e., regional unemployment rates) have on the process of voluntary employee turnover. A model of voluntary employee turnover is presented and tested. It is hoped that through understanding employee turnover, its causes, and its consequences, the Air Force can more effectively manage it. By effectively managing employee turnover, the Air Force can

minimize the negative impacts of personnel attrition on the organization.

#### II. Literature Review

#### Background

A sizeable amount of psychological literature measuring the relationship between labor market perceptions (i.e., perceived alternatives) and voluntary turnover has been written over the past decade as reported by Steel and Griffeth (1989). However, less literature has been produced measuring the relationship between general labor market conditions (i.e., regional unemployment rates) and voluntary turnover. Moreover, to date only one article has incorporated both labor market perceptions and general labor market conditions in testing a voluntary turnover model (Gerhart, 1990).

The results of research measuring the relationship between labor market perceptions and voluntary turnover have been mixed. Michaels and Spector (1982) found that perceived alternatives made no significant contribution to predicting the voluntary turnover of employees of a southeastern United States community health center. Other studies have produced similar results (Griffeth & Hom, 1988; Mobley et al., 1978; Martin, 1979). In contrast, some literature has shown a significant correlation between perceived alternatives and voluntary turnover (Miller et al., 1979; Price & Mueller, 1981; Meola and Koechel, 1983; Flores, 1984).

The results of research measuring the relationship between general labor market conditions and voluntary turnover have consistently been significant (Hulin et al., 1985; Mobley, 1977). As noted earlier, March and Simon (1958) stated that "under nearly all conditions, the most accurate single predictor of labor turnover is the state of the economy" (p. 100). One index of the state of the economy is the unemployment rate (Flanagan et al., 1984). According to Hulin et al. (1985), the unemployment rate, whether aggregated across "area, time, or industry" (p. 235), consistently correlates significantly with voluntary turnover.

Only Gerhart (1990) has included both labor market perceptions and general labor market conditions in examining their effects on voluntary turnover. Gerhart (1990) found that the unemployment rate affects voluntary turnover both directly, and indirectly through perceived ease of movement (i.e., perceived alternatives) acting in concert with intention to stay.

Similar to Gerhart's study, the current study tests a voluntary turnover model that incorporates labor market perceptions and general labor market conditions with the individual variables of cognitive ability and experience (i.e., tenure). Initially, this literature review will discuss three models of voluntary employee turnover (i.e., March & Simon, 1958; Mobley et al., 1979; Gerhart, 1990) that provide the conceptual background for the study.

Second, empirical literature dealing with the relationships between voluntary turnover and perceived alternatives and voluntary turnover and unemployment rate is reviewed. Following this discussion of the literature, a turnover model is presented along with testable hypotheses.

## Three Models of Voluntary Employee Turnover

There are four voluntary employee turnover models that are often recognized as laying the theoretical foundation for the study of turnover (March and Simon, 1958; Price, 1977; Mobley, Griffeth, Hand, and Meglino, 1979; Mowday, Porter, and Steers, 1982). However, only March and Simon's (1958) model and Mobley et al.'s (1979) model is discussed because of their pertinence to Gerhart's (1990) voluntary employee turnover model. Since Gerhart's (1990) model forms the basis for the present study, it is also discussed.

March and Simon (1958). March and Simon's cornerstone turnover model is one of the first models to integrate labor market factors and individual behavior (Mobley, 1982). March and Simon's (1958) turnover model consists of two components: "the perceived desirability of leaving the organization and the perceived ease of movement from the organization (i.e., the utility of alternatives foregone)" (p. 93).

Figure 1 illustrates the major factors affecting the perceived desirability of movement. March and Simon (1958)

state that job satisfaction, as defined by the employee, is the main factor that influences the employee's desire to leave the organization. The lower the employee's job satisfaction, the greater the employee's perceived desire to leave the organization. According to March and Simon (1958), job satisfaction depends on "conformity of the job characteristics to the self-characterization held by the individual, predictability of instrumental relationships on the job, and compatibility of work requirements with the requirements of other roles" (pp. 94-95).

Another primary factor influencing perceived desirability of movement is the perception of potential intraorganizational transfer (March & Simon, 1958). The larger the organization, the greater this perception, and consequently, the less perceived desirability of movement.

Figure 2 illustrates the major factors affecting the perceived ease of movement. The main influencing factor is the number of perceived extraorganizational alternatives (i.e., jobs that a person is qualified for and willing to accept) (March & Simon, 1958). Perceived extraorganizational alternatives are, in turn, affected by the level of business activity, the characteristics of the employee (e.g., gender, tenure, and age), and the number of organizations visible to the employee (March & Simon, 1958). Furthermore, March and Simon (1958) add that the number of organizations visible to the employee depends on both the visibility of the employee and the employee's propensity

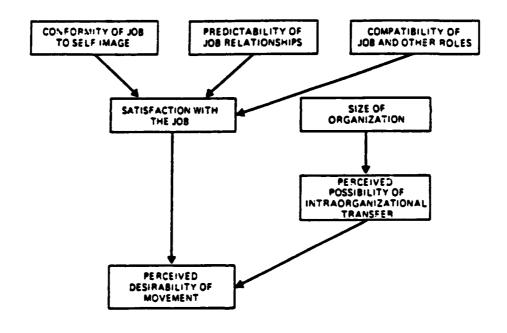


Figure 1. Major Factors Affecting Perceived Desirability of Movement (March & Simon, 1958, p. 99)

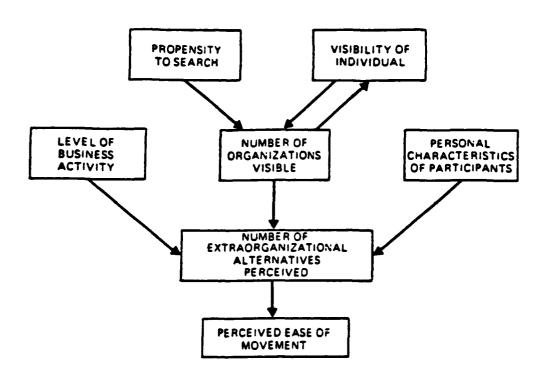


Figure 2. Major Factors Affecting Perceived Ease of Movement (March & Simon, 1958, p. 106)

to search for alternatives.

Mobley, Griffeth, Hand, and Meglino (1979). Based on previous turnover research, Mobley et al. (1979) developed a conceptual model of the employee turnover process as shown in Figure 3. The following characteristics summarize this complex model:

- 1. It is a model of individual-level turnover behavior. Individual differences in perceptions, expectations, and values are explicitly recognized. Further, individual differences in personal and occupational variables are included.
- 2. Perception and evaluation of alternative jobs is given explicit treatment.
- 3. The probable roles of centrality of work values and interests relative to other values and interests, beliefs regarding nonwork consequences of quitting or staying, and contractual constraints are specifically recognized.
- 4. The possible joint contribution to turnover of job satisfaction (present affect), job attraction (expected future affect), and attraction to attainable alternatives is proposed.
- 5. Intention to quit is considered to be the immediate precursor of turnover, with impulsive behavior and the time between measurement of intentions and behavior attenuating this relationship. (Mobley et al., 1979, p. 516)

Mobley (1982) further suggests that there are four main determinants of the intention to quit and subsequent turnover. The four determinants are: "(1) job satisfaction-dissatisfaction, (2) expected utility of alternative internal (to the organization) work roles, (3) expected utility of external (to the organization) work roles, and (4) nonwork values and contingencies" (p. 125)

According to Mobley et al. (1979), job satisfaction is an affective response to the present evaluation of the job based on perceptions of various job aspects relative to

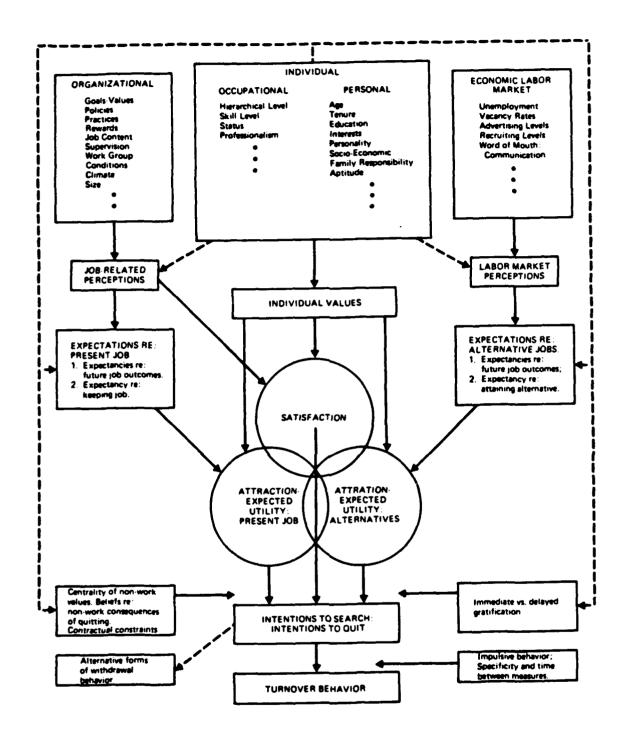


Figure 3. A Schematic Representation of the Primary Variables and Processes of Employee Turnover (Mobley et al., 1979, p. 517)

individual values. For example, when the perceptions of the current job are consistent with the employee's values, the employee experiences job satisfaction.

There are four key aspects to understanding job satisfaction, and its relationship to employee turnover (Mobley, 1982). First, since job satisfaction is based on the perceptions and values of the employee, job satisfaction is a highly individualized response. What is satisfying to one employee may not be satisfying to another employee. Second, job satisfaction emphasizes employee perceptions. Job satisfaction is a function of what the employee sees relative to her/his values. Third, job satisfaction consists of many dimensions. Generally, the employee has several values that must be consistent with the job before s/he is satisfied. Finally, job satisfaction is based on a present evaluation of the job, not a future evaluation. Consequently, the employee's expectations of future organizational conditions are not relevant.

Mobley et al.'s (1979) turnover model suggests that the second determinant of intention to quit is "attraction and expected utility of present job" (p. 518). If the employee expects the present job to become more satisfying, s/he is less likely to quit than the employee who expects the present job to grow more dissatisfying. Just as job satisfaction is multifaceted, so is attraction. Attraction may be related to individual values associated with

occupation, position level, age, tenure, and other personal values (Mobley et al., 1979).

The third determinant of intention to quit, according to Mobley et al.'s (1979) model, is "attraction and expected utility of alternatives" (p. 519). This variable represents the employee's expectation of finding an alternative job outside the present organization that leads to the attainment of positively valued outcomes. For example, a first-term Air Force enlistee who is dissatisfied with the Air Force may separate expecting to find and attain a more satisfying job outside the Air Force. This expectation of an alternative job, coupled with the expected utility of the internal (to the organization) role, may accurately predict voluntary turnover.

The final determinant of intention to quit is "nonwork values and roles" (Mobley, 1985,p.130). Besides considering work-related factors, the employee may also consider nonwork values and roles. According to Mobley (1982), family orientation, life style, geographic preference, religious, altruistic, and social values may be nonwork values that interact with work values in the turnover process.

Therefore, predicting turnover requires consideration of both work and nonwork values and roles.

Gerhart's (1990) Model. Gerhart's (1990) voluntary turnover model, as illustrated in Figure 4, is the first turnover model to incorporate both general labor market conditions (i.e. unemployment rate) and perceived ease of

movement with more traditional individual level cognitive variables. This model seeks to incorporate ideas expressed by both the March and Simon (1958) turnover model and the Mobley et al. (1979) model.

Like the March and Simon (1958) model and the Mobley et al. (1979) model, Gerhart's (1990) model suggests that voluntary turnover is "a function of job satisfaction (or perceived desirability of movement) and perceived ease of movement (or labor market perceptions)" (p. 468). Thus, low job satisfaction, accompanied by high perceived ease of movement, indirectly influences voluntary turnover through intention to stay. Additionally, both cognitive ability and unemployment experience are related to perceived ease of movement similar to the March and Simon (1958) model and the Mobley et al. (1979) model.

Unlike the Mobley et al. (1979) model, Gerhart's (1990) model hypothesizes that unemployment rate directly affects voluntary turnover rather than being mediated by perceived ease of movement and intention to stay (Gerhart, 1990).

This is consistent with the view that a tight labor market (i.e., jobs are more plentiful relative to job seekers) may provide attractive job alternatives even though there may be no conscious change in labor market perceptions (Gerhart, 1990). Moreover, unemployment rate is predicted to moderate the relationship between intention to stay and voluntary turnover. In other words, Gerhart (1990) states that "a person who does not intend to guit may do so after receiving

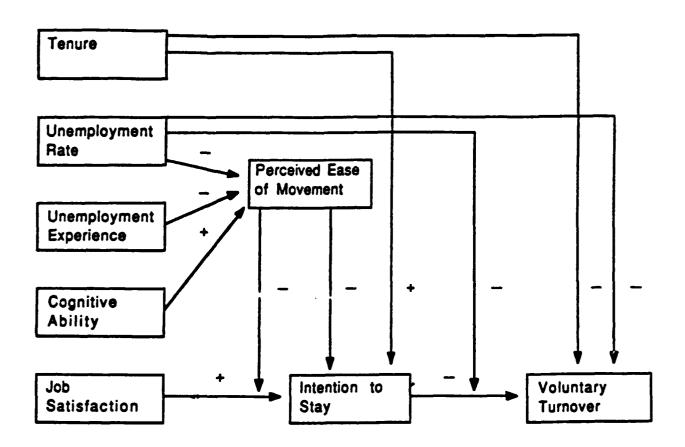


Figure 4. Gerhart's Structural Model of Voluntary Turnover (Gerhart, 1990, p. 475)

an unexpected, but attractive alternative job offer" (p. 469). Finally, unlike the Mobley et al. (1979) model, tenure is directly related to both intention to stay and voluntary turnover. According to Gerhart (1990), longer tenure may reflect "a good match between employee and job" (p. 473). Consequently, employees with longer tenure may stay with an organization despite attractive alternatives and high perceived ease of movement.

### Empirical Literature Review

As noted earlier, a sizeable amount of literature measuring the relationship between labor market perceptions (i.e., perceived alternatives) and voluntary turnover has been written over the past decade as reported by Steel and Griffeth (1989). However, literature measuring the relationship between general labor market conditions (i.e., unemployment rate) and voluntary turnover is scarce. The effects of general labor market conditions are often only briefly mentioned in studies focusing on perceptive processes. To date, only one study included both labor market perceptions and general labor market conditions in testing a voluntary turnover model (Gerhart, 1990). A chronological synopsis of articles pertaining to labor market perceptions and general labor market conditions follows.

Mobley, Horner, and Hollingsworth (1978). Mobley et al. (1978) surveyed 203 full-time employees of a hospital

located in the southeastern United States. The intent of the survey was to measure the employees' perception of alternative job offers and job satisfaction. Specifically, the questionnaire used a five point Likert scale ranging from (1) very unlikely to (5) certain to measure the probability of finding an acceptable job alternative.

Forty-seven weeks after the survey was administered, actual turnover statistics were collected. Mobley et al. (1978) obtained a nonsignificant correlation of r = .07 between perceived alternatives and turnover. In other words, the chance of finding an acceptable alternative was not significantly correlated with turnover.

Miller, Katerberg, and Hulin (1979). The purpose of Miller et al.'s (1979) research was to further validate the Mobley et al. (1978) turnover model. Seven variables from the Mobley et al. (1978) model were combined into the following four general constructs: "withdrawal behavior (i.e., turnover), withdrawal cognitions (i.e., intention to quit, intention to search, and thinking of quitting), job satisfaction, and career mobility (i.e., age/tenure, and probability of finding an acceptable alternative" (p. 510). A survey was administered to two independent samples of National Guard members. Sample one and sample two consisted of 235 and 225 individuals, respectively. The results indicated that all seven variables except tenure were related to turnover for both samples. Specifically, age and Job satisfaction were negatively related to turnover. The

other variables (i.e., chance of obtaining an alternative job, thinking of quitting, intention to search, and intention to quit) were positively correlated with turnover. Intention to quit was found to be the strongest predictor of turnover (r = .71, p < .05) in sample one and in sample two (r = .66, p < .01). Although the correlation between the probability of finding an acceptable alternative job and turnover was significant for both samples (i.e., r = .16, p < .05; and r = .34, p < .01), it was one of the weakest correlations produced by the study. One possible reason cited for this weak correlation was that "labor market perceptions may influence resignation behavior only under extreme, negative circumstances (e.g., economic recession)" (Miller et al., 1979, p. 516).

Martin (1979). The purpose of Martin's (1979) research was to investigate a comprehensive model of the employee's intention to stay or leave an organization. One of the relationships Martin (1979) examined was between intention to stay or leave and opportunity to leave. "Opportunity" was defined as "the extent to which alternative occupational roles are available in the environment as suggested by employment opportunities. If unemployment is high, generally opportunity is low" (Martin, 1979, p. 316). A survey was utilized to collect data from a sample of 177 full-time employees of a service oriented business. The independent variable, opportunity, was measured by multiple items, and then combined into a composite index. Rather

than interacting with job satisfaction, Martin (1979) found that opportunity had a direct effect on satisfaction.

Additionally, job satisfaction had a direct effect on intent to leave.

Price and Mueller (1981). The purpose of Price and Mueller's (1981) research was to investigate the relationship between opportunity and turnover. "Opportunity" was defined as "the availability of alternative jobs in the organization's environment" (Price & Mueller, 1981, p. 545). The sample consisted of 1010 nonsupervisory, registered nurses. In 1976, a survey was administered to measure opportunity. In 1977, a follow-up study examined the influence of perceived alternatives on turnover. The results indicated a significant correlation of r = .19 (p < .01) existed between opportunity and turnover.

Michaels and Spector (1982). Michaels and Spector's (1982) study was a test of the Mobley et al. (1979) model. They hypothesized that individual factors (e.g., age and tenure) and organizational factors (e.g., perceived job characteristics) would lead to job satisfaction and organizational commitment, which in conjunction with perceived alternative employment, would lead to intention to quit and turnover. Survey data were collected from a sample of 112 employees of a community mental health center. A single survey item measured perceived alternative employment. All other variables (e.g., personal

characteristics, job satisfaction, and intention to quit) were measured by more than one survey item. Michaels and Spector (1982) obtained a correlation of r = .12 between perceived alternatives and turnover. This correlation was not significant. Additionally, the correlation between perceived alternatives and intention to guit was not significant (r = .04). Michaels and Spector concluded that their results were supportive of the Mobley et al. (1979) model and that "perceived alternative employment opportunities added nothing to the model as a direct cause of intention to quit or turnover, or as a moderator" (p. 53). However, Michaels and Spector (1982) did suggest that actual labor market conditions may have more of an effect on turnover than the Mobley et al. (1979) model hypothesized. They suggested that employees may quit their job when other alternatives become available, instead of when they think alternatives may be found. "When the job market is good, opportunities to find alternative employment are plentiful, and turnover is more likely" (Michaels & Spector, 1982, p. 59).

Meola and Koechel (1983). Meola and Koechel (1983) collected survey data from two groups (i.e., a high occupational demand group and a low occupational demand group) of Air Force officers (n = 739) to determine the relationship between perceived job alternatives and the decision to remain in the Air Force. The survey was specifically developed "to measure several variables dealing"

with the marketability of respondent skills and availability of employment opportunities" (Meola & Koechel, 1983, p. 36). The perceived alternatives variable was measured using four survey items. A significant correlation of r=.52 (p < .01) between perceived alternatives and intent to remain was obtained for the high occupational demand group. Similarly, a significant correlation of r=.56 (p < .01) was obtained for the low occupational demand group.

Flores (1984). The objective of Flores' (1984) study was to determine how Air Force enlistees perceive and evaluate alternative job opportunities. Flores (1984) hypothesized that contextual factors (e.g., perceived job market and occupational demand), incentive factors (e.g., financial benefits and personal freedom), and personal factors (e.g., information awareness and experience) have an influence on an individual's intention to stay with the organization. The sample consisted of 453 first-term Air Force enlistees who were within one year of making a reenlistment decision and who were serving in one of the 20 occupations determined to be either an extremely high or low demand occupation. The results of the survey data showed a significant, yet modest correlation of r = -.34 (p < .01) between perceived alternatives and intent to remain.

Hoene (1986). Hoene (1986) conducted a longitudinal study using Flores' (1984) survey data supplemented by actual turnover statistics. Hoene (1986) focused on the effect of perceived alternative job opportunities on the

individual's intent to search, intent to quit, and reenlistment behavior. The sample consisted of 413 first-term Air Force enlistees who were within one year of a reenlistment decision and who were serving in one of the 20 career fields determined to be either a high demand occupation or a low demand occupation. Actual turnover data for this sample was obtained with the assistance of the Air Force Manpower Personnel Center (MPC) Randolph AFB, Texas. The results revealed that intention to quit was significantly correlated with actual turnover for the total sample (r = -.68, p < .01). Additionally, a significant correlation of r = .31 (p < .01) between perceived alternatives and actual turnover was obtained. Hoene (1986) concluded that "behavioral intentions were strongly related to actual turnover" (p. 93).

Griffeth and Hom (1988). Griffeth and Hom (1988) surveyed 244 nurses in a large Ohio hospital to assess the determinants of turnover. Specifically, this study was performed to compare the relative predictive validity of different formulations of perceived alternatives within the framework of the Mobley et al. (1979) turnover model. Several variables, including general availability of alternatives, expected utility of alternatives, expected utility of job offers, job satisfaction, and intention to quit, were measured. Intention to quit was the best predictor of turnover r = .41 (p < .05). Additionally, the general availability of alternatives proved to be a better

predictor of turnover than the more specific measures of expected utility. However, Griffeth and Hom (1988) concluded that "no measure of perceived alternatives made a significant independent contribution to the prediction of turnover" (p. 108).

Steel and Griffeth (1989). Steel and Griffeth (1989) performed a meta-analysis to estimate the relationship between perceived alternatives and turnover. Based on this meta-analysis of 21 turnover studies, Steel and Griffeth (1989) found a weak weighted-average correlation of .13 between perceived alternatives and turnover. Steel and Griffeth (1989) outlined three potential methodological biases that may contribute to this weak relationship. First, samples that are occupationally homogeneous may attenuate the relationship between perceived alternatives and turnover because the range and variance of the perceived alternative measures are restricted. Moreover, Steel and Griffeth (1989) noted that the prototypical psychological sample selected from one region, one industry, one organization, or at one point in time suffers from extreme range restriction. Another potential methodological bias occurred when the turnover base rate was below the optimal .50 level. The predictable criterion variance of turnover measures is greatest when the turnover base rate is set at .50. Finally, Steel and Griffeth (1989) noted that inadequate instrumentation contributes to the weak relationships between perceived alternatives and turnover.

Studies using single item rating scales may not have fully reflected the effect of labor market perceptions on turnover decisions. Moreover, the various definitions of perceived alternatives used by turnover researchers may have attenuated the perceived alternatives-turnover relationships.

Gerhart (1990). The purpose of Gerhart's (1990) study was to provide the first test of a voluntary turnover model that included measures of general labor market conditions (i.e., unemployment rate) and labor market perceptions (i.e., perceived ease of movement), as well as the variables of general ability and experience. Survey data were collected from a sample of 1,395 young people between the ages of 18 and 23 years old. The results showed unemployment rate to be significantly correlated with turnover (r = -.12, p < .05), intention to stay (r = .31, p < .05)p < .05), and perceived ease of movement (r = -.16, p < .05). These results suggested that general labor market conditions had a direct effect on turnover, and that their effects were not entirely mediated by intention to stay and perceived ease of movement. Moreover, the interaction between intention to stay and unemployment rate "was such that intention to stay was most strongly associated with voluntary turnover when the unemployment rate was low" (Gerhart, 1990, p. 47). Cognitive ability was found to affect turnover through perceived ease of movement. Tenure

directly affected both voluntary turnover and intention to stay.

Steel, Flores, and Hoene (1991). The purpose of Steel et al.'s (1991) study was to test a hypothesis developed by Steel and Griffeth (1989). Specifically, Steel et al. (1991) examined the effect of homogeneous sampling on the relationship between perceived alternatives and turnover. The sample consisted of 402 first-term Air Force enlistees who were serving in either a high or low demand Air Force occupation. Surveys were administered during 1984. data collected measured individual differences, intention to search, labor market monitoring, perceived alternatives, and career intentions. Actual reenlistment data of the survey respondents were collected during 1986. Steel et al. (1991) compared intragroup (i.e., homogeneous occupations) perceived alternatives-reenlistment correlations to perceived alternatives-reenlistment correlations of the entire sample (i.e., heterogeneous occupations). The results indicated that the criterion correlations from the heterogeneous sample were larger than the criterion correlations from the homogeneous sample. Additionally, labor market factors were found to influence the relationship between perceived alternatives and turnover.

## Problem Statement

This study investigates the effects of general labor market conditions and perceived ease of movement on the

reenlistment decisions of first-term Air Force enlistees.

This information may help Air Force managers to more effectively manage the turnover process and reduce the costs of attrition. Furthermore, this knowledge may enhance the Air Force's ability to sustain a competitive advantage in the labor market, thereby allowing the Air Force to continue to attract and to retain highly qualified personnel.

#### Objectives of the Study

This cross-sectional study used data collected by Flores (1984), and supplemented by Hoene (1986), to analyze the effects of regional unemployment rates and perceived ease of movement on the reenlistment decisions of Air Force enlistees. The effects of individual level variables (i.e., tenure and cognitive ability) on perceived ease of movement and voluntary turnover are also examined.

#### Model Development

The voluntary employee turnover model developed for the present study is a modified version of the Gerhart (1990) turnover model presented in Figure 4. Similar to the Gerhart (1990) model, the proposed turnover model, as shown in Figure 5, incorporates both unemployment rate, as a measure of general labor market conditions, and perceived ease of movement, as a measure of labor market perceptions. Additionally, intention to stay, tenure, and cognitive ability are included in the model as predictor variables. In contrast to the Gerhart (1990) model, the proposed

turnover model does not take into account either job satisfaction or unemployment experience. This exclusion is due to the lack of data measuring these two variables.

#### **Hypotheses**

Based on the proposed voluntary employee turnover model illustrated in Figure 5, the current study tests the following hypotheses:

<u>Hypothesis 1</u>. Regional unemployment rate will significantly predict voluntary turnover.

<u>Hypothesis 2</u>. Regional unemployment rate will moderate the relationship between intention to stay and voluntary turnover.

<u>Hypothesis 3</u>. Regional unemployment rate will be inversely related to perceived ease of movement.

<u>Hypothesis 4</u>. Cognitive ability will be positively related to perceived ease of movement.

<u>Hypothesis 5</u>. Perceived ease of movement will be inversely related to intention to stay.

<u>Hypothesis 6</u>. Tenure will be positively related to intention to stay.

<u>Hypothesis 7</u>. Tenure will be negatively related to voluntary turnover.

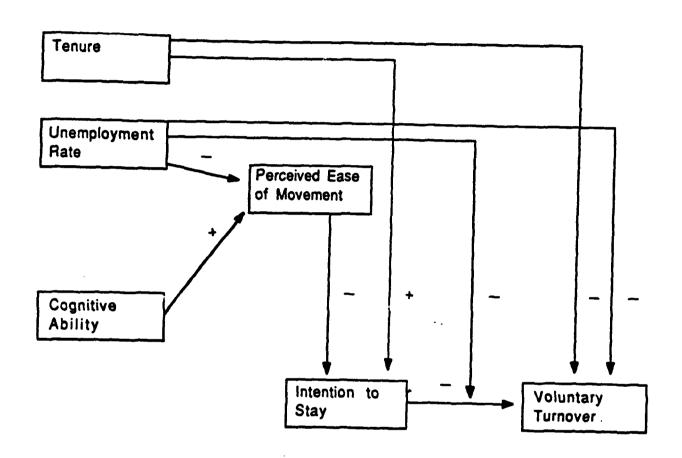


Figure 5. Proposed Structural Model of Voluntary Turnover

## III. Method

#### Sample

The sample for the present study consisted of 414 Air Force enlistees. Initially, Flores (1984) surveyed 453 Air Force enlistees. With the assistance of the Air Force Military Personnel Center (MPC) at Randolph Air Force Base, Texas, Flores selected a stratified sample representing those individuals who were within one year of their first reenlistment and who were assigned to one of the 20 Air Force Specialty Codes (AFSCs) listed in Table 1. These 20 AFSCs were chosen because they represented the highest and lowest retention AFSCs for calendar year 1983. Retention rates for 1983 were used by Flores as an index of occupational demand for particular AFSCs. Table 2 and Table 3 show the high retention AFSCs and the low retention AFSCs, respectively. The number of respondents for each AFSC is also given in the tables.

Hoene (1986) collected reenlistment data. The final sample contained 414 Air Force enlistees when cases with missing data were dropped from the sample. A total of 39 respondents were eliminated from the sample because reenlistment data for them were not available.

#### Predictors

This study utilized data from three sources: Flores' (1984) survey, Hoene's (1986) turnover statistics, and the

TABLE 1
1983 Census Population (Flores, 1984, p. 28)

AFSC	Description	Retention	Rate *
113X0	Apr Flight Engineer Specialist	141/169	83.4%
242X0	Apr Disaster Preparedness Spec	37/ 43	86.0%
302X1	Apr Abn MeT/ARE Specialist	1/ 4	25.0%
341X4	Apr Flight Simulator Specialist	31/122	25.4%
392X0	Apr Maintenance Sched Spec	105/127	82.7%
552X4	Apr Protecting Coating Spec	22/ 90	24.4%
591X0	Apr Seaman	2/ 2	100.0%
611X0	Apr Service Specialist	40/46	87.0%
622X0	Apr Food Service Specialist	199/754	26.4%
732X4	Career Advisory Specialist	14/ 16	87.5%
733X1	Manpower Management Specialist	81/ 97	83.5%
734X0	Social Actions Specialist	47/ 54	87.0%
751X2	Training Specialist	251/268	93.7%
751X3	Instructional Systems Specialist	12/ 14	85.7%
753X1	Gunsmith Helper	1/ 1	100.0%
903X1	Nuclear Medicine Specialist	1/ 5	20.0%
925X0	Apr Cytotechnology	2/ 2	100.0%
99500	Recruiter	24/ 26	92.3%
99501	Research and Development Technician	• -	22.0%
99504	LGM-30 Facility Manager	3/ 3	
		=======	======

Note: Figures provided by MPR/RMS (Current as of 31 Dec 83)

<sup>\*</sup> The retention rate is calculated as an annual ratio of the number of reenlistments to the number of eligible enlisted personnel within a given AFSC.

TABLE 2

1984 Low Attrition AFSCs (Flores, 1984, p. 29)

	<b>-</b>	
<u>AFSC</u>	Description	<u>n</u>
113X0	Apr Flight Engineer Specialist	32
242X0	Apr Disaster Preparedness Spec	12
392X0	Apr Maintenance Sched Spec	31
591X0	Apr Seaman	7
611X0	Apr Service Specialist	27
732X4	Career Advisory Specialist	10
733X1	Manpower Management Specialist	44
734X0	Social Actions Specialist	23
751X2	Training Specialist	32
751X3	Instructional Systems Specialist	2
753X1	Gunsmith Helper	0
925X0	Apr Cytotechnology	1
99500	Recruiter	3
99504	LGM-30 Facility Manager	0

TABLE 3

1984 High Attrition AFSCs (Flores, 1984, p. 29)

AFSC	Description	<u>n</u>				
302X1	Apr Abn MET/ARE Specialist	5				
341X4	Apr Flight Simulator Specialist	74				
552X4	Apr Protective Coating Spec	20				
622X0	Apr Food Service Spec	116				
903X1	Nuclear Medicine Specialist	2				
99501	Research and Development Tech	12				

Note: Figures provided by MPC/RMS (Current as of 31 Dec 83) U.S. Bureau of Labor Statistics' 1986 state unemployment rates (Employment and Earnings, April 1986-March 1987).

As displayed in Appendix A, Flores' survey was designed "to measure several variables dealing with marketability of respondent skills and availability of employment opportunities" (Flores, 1984, p. 31). The survey focused on five primary areas: (1) demographics, (e.g., age and skill level), (2) behavioral intentions, (e.g., intention to reenlist in the Air Force and intention to search for alternatives), (3) perceptions of economic conditions relating to job hunting, (4) perceptions about the marketability of respondent's Air Force skills, and (5) explanatory variables used as moderators (Flores, 1984).

Six survey variables from Flores' database were analyzed in the current study (i.e., tenure, cognitive ability, perceived ease of movement, intention to stay, and voluntary turnover).

Tenure. Flores measured tenure (i.e., length of service) by asking the following question, "how much time have you spent on active duty in the military?" Possible responses ranged from (1) less than two years to (7) 12 years or more.

Cognitive Ability. Flores (1984) measured cognitive ability with the following survey item, "what is your skill level?" Possible responses included (1) 1, (2) 3, (3) 5, (4) 7, (5) 9, (6) 0, and (7) other. Higher scores correspond to higher skill levels.

Perceived Ease of Movement. Flores (1984) measured perceived ease of movement by asking, "if you left the Air Force tomorrow, how easy would it be for you to get another job?" Possible responses were (1) very easy, (2) somewhat easy, (3) neither easy nor difficult, (4) somewhat difficult, and (5) very difficult. This measure emphasized the quantity of available alternative jobs rather than the quality of alternative jobs (Steel & Griffeth, 1989). According to Steel and Griffeth (1989), a single-item measure such as this may not fully reflect the effect of labor market perceptions on turnover decisions.

Intention to Stay. Flores measured intention to stay by asking, "which of the following best tells how you feel about a career in the Air Force?" Possible responses were (1) I definitely intend to remain with the Air Force, (2) I probably will remain with the Air Force, (3) I have not decided whether I will remain with the Air Force, (4) I probably will not remain with the Air Force, and (5) I definitely intend to separate from the Air Force. This variable has received empirical support as a strong predictor of employee turnover. Through a meta-analysis of 34 studies, Steel and Ovalle (1984) found a significant weighted-average correlation of .50 between behavioral intentions and employee turnover.

<u>Voluntary Turnover</u>. Hoene (1986) measured voluntary turnover by collecting retention statistics from MPC on those survey respondents who were eligible to reenlist in

the Air Force. This factor was coded 0, voluntary turnover, or 1, reenlistment.

#### Procedure

Because the current study is part of an ongoing research project, the procedures for the current research are similar to those described in Flores (1984) and Hoene (1986).

Flores used the Air Force-wide database system, ATLAS, to generate the names of enlisted personnel who met the proper qualifications for her sample (i.e., enlistees within one year of reenlistment and serving in one of the 20 AFSCs listed in Table 1). Surveys were distributed to 1006 Air Force enlistees during May 1984. A cover letter attached to each survey assured the participants of the confidentiality of their responses. Fifty-seven of the returned surveys were discarded from the analysis because they were either invalid, late, or undeliverable. A total of 453 completed and valid surveys were returned. This represented a 45% response rate.

Hoene (1986) supplemented Flores' (1984) data by collecting longitudinal data on the attrition of respondents from Flores' sample. With the assistance of MPC and the use of the worldwide locator/alpha roster for enlisted personnel, Hoene performed a manual search of the roster to determine whether respondents in Flores' study had reenlisted in the Air Force. MPC also identified those

participants who had involuntarily separated from the Air Force. Of the 453 initial survey respondents, 39 survey respondents were dropped from Hoene's study because data were unavailable, respondents were involuntary separated, or respondents extended their first term reenlistment.

Consequently, Hoene's final sample consisted of 414 individuals. Hoene's turnover statistics were collected and added to the computer database during March 1986.

The present study focused on the effects of regional labor market conditions on the reenlistment decisions of Air Force enlisted personnel. Specifically, the 1986 average state unemployment rates were manually calculated from the monthly state unemployment rates reported in the <u>U.S.</u> Bureau of Labor Statistics. For example, the 1986 average unemployment rate for the state of Wisconsin was computed by summing each of Wisconsin's monthly unemployment rates for calendar year 1986. This total sum was then divided by 12 to obtain the 1986 average state unemployment rate for Wisconsin. A 1986 average unemployment rate was calculated for each state. State unemployment rate was assumed to be an accurate reflection of the regional labor market conditions. These state unemployment statistics were entered into the existing database by matching the appropriate digitek form number previously assigned to each survey respondent by Flores (1984) with the correct calculated state unemployment rate.

The current mailing addresses of respondents (i.e., current duty stations) at the time Flores administered her survey became the basis for assigning regional unemployment rates. The states listed in these current addresses were used to determine the average unemployment rates for the survey respondents.

#### IV. Results

This chapter presents the results obtained from the tests of the hypotheses proposed in Chapter 2. First, however, the descriptive statistics and intercorrelation matrices for the total sample, low attrition group, and high attrition group are discussed. As noted in Chapter 3, the low attrition and high attrition groups represented Air Force occupations with the highest and lowest retention rates for calendar year 1983, respectively.

## Descriptive Statistics

The descriptive statistics for the total sample, low attrition group, and high attrition group are presented in Tables 4, 5, and 6, respectively. Table 4 revealed an average turnover rate of .58 for the total sample of first-term Air Force enlistees. Additionally, the average regional unemployment rate for the total sample was 6.86. The low attrition group had a higher average turnover rate (i.e., .64) and a slightly lower average unemployment rate (i.e., 6.73) as shown in Table 5. Conversely, the high attrition group had a lower average turnover rate (i.e., .52) and a slightly higher average unemployment rate (i.e., 6.99) as shown in Table 6.

#### Intercorrelation Matrices

Table 7 contains the intercorrelation matrix for the total sample. There were several significant correlations.

TABLE 4

Descriptive Statistics for the Total Sample

<u>Variable</u>	<u>M</u>	SD	N			
Tenure Skill Intention to Stay (A) Ease of Movement Turnover Unemployment Rate (B) A * B	2.60 4.69 3.14 2.40 0.58 6.86 21.55	0.60 1.55 1.34 1.08 0.49 1.71	452 445 452 452 413 450 450			

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TABLE 5

Descriptive Statistics for the Low Attrition Group

***************************************		=======	=====
<u>Variable</u>	<u> </u>	SD	<u>N</u>
Tenure	2.86	0.55	222
Skill	4.41	1.71	217
Intention to Stay (A)	3.03	1.29	222
Ease of Movement	2.46	1.04	222
Turnover	0.64	0.48	210
Unemployment Rate (B)	6.73	1.46	220
A * B	20.56	10.31	220

TABLE 6

Descriptive Statistics for the High Attrition Group

Variable <u>M</u> SD <u>N</u> 0.54 2.36 230 Tenure 4.95 Skill 1.34 228 230 3.25 1.38 Intention to Stay (A) Ease of Movement 2.35 1.11 230 203 0.52 0.50 Turnover 1.92 230 Unemployment Rate (B) 6.99 230 A \* B 22.49 11.19  Turnover was correlated with intention to stay (r = -.68), ease of movement (r = .31), and the interaction variable of intention to stay x unemployment rate (r = -.58). Intention to stay was correlated with ease of movement (r = -.58) and the interaction variable (r = .84). Finally, the interaction variable was correlated with ease of movement (r = -.26) and unemployment rate (r = .50). Consistent with Steel and Ovalle (1984), intention to stay was found to be a strong predictor of turnover. As shown in Tables 8 and 9, the intercorrelation matrices for both the low attrition group and the high attrition group revealed the same correlational relationships as those found in the total sample, but with varying degrees of significance. There was one exception, however. Turnover was not correlated with ease of movement in the high attrition group.

#### Test of Hypothesis 1

Hypothesis 1 predicted that regional unemployment rate would significantly predict voluntary turnover. Regression analysis was performed to determine if regional unemployment rate would enter significantly as a predictor of turnover. Regression analysis did not support this hypothesis.

Additionally, no correlation was found between regional unemployment rate and voluntary turnover for the total sample, low attrtion group, and high attrition group as depicted in Tables 7, 8, and 9, respectively. This result contradicted Gerhart's (1990) conclusion that general labor

TABLE 7

	Intercorrelation	on N	<b>fatrix</b>	for t	the Tot	al Sam	ple	
Var	iable		1	2	3	4	5	6
	_							
	Tenure							
	Skill		.02					
3.	Intention to Stay (	(A)	.02	.03				
4.	Ease of Movement		.00	01	34*			
5.	Turnover		.01	02	68*	.31*		
6.	Unemployment Rate (						02	
7.		,	03	.03	.84*	26*	58*	.50*

Note: \* p < .001</pre>

TABLE 8

	Intercorrelation Matri	x for	the	Low A	ttritio	n Group	
===:		====	====	:55555	======	======	====
Var:	iable	1	2	3	4	5	6
2. 3. 4. 5.	Tenure Skill Intention to Stay (A) Ease of Movement Turnover Unemployment Rate (B) A * B	.01 01 09	.01 .01 .19	25* 68* .09	02		.52*
Not	e: * p < .001 ** p < .01 *** p < .05	2522:	:		=====		****

TABLE 9

	Intercorrelation Mate	rix for	r the	High	Attritio	n Grou	þ
===	*************	=====:		=====	=======	=====	:====
Var	iable	1	2	3	4	5	6
1.	Tenure						
2.	Skill	.02					
3.	Intention to Stay (A)						
4.	Ease of Movement	06	03	41*	<b>!</b>		
	Turnover						
6.	Unemployment Rate (B)	)03	11	08	.04	.00	
7.	A * B	.01	10	.80	30*	57*	.45*
===	# = = = = = = = = = = = = = = = = = = =	=====:		***==	:======	=====	
Not	<u>e</u> : * p<.001						

market conditions, as measured by regional unemployment rate, directly affect voluntary turnover.

## Test of Hypothesis 2

Hypothesis 2 predicted that regional unemployment rate would moderate the relationship between intention to stay and voluntary turnover. As shown in Table 10, regression analysis revealed that intention to stay entered significantly as a predictor of turnover ( $\Delta R^{\lambda} = .47$ , p < .0001), but unemployment rate did not. Additionally, the interaction variable (i.e., intention to stay \* unemployment rate) entered significantly as a predictor of turnover (AR2 = .33, p < .0001). However, the intent-unemployment interaction variable was not as strong a predictor of turnover as the intention to stay variable was by itself. Because both of the main effect variables (i.e., intention to stay and unemployment rate) did not enter as significant predictors of turnover, this hypothesis was not supported. This finding did not agree with earlier research conducted by Gerhart (1990), Michaels and Spector (1982), and Muchinsky and Morrow (1980). According to Michaels and Spector (1982), "if a person intends to quit a job, he or she most likely would quit when another job became available" (p. 58).

#### Test of Hypothesis 3

Hypothesis 3 predicted that regional unemployment rate would be inversely related to perceived ease of movement.

TABLE 10

Results of Regression Analysis of the Predictors of Turnover

		=======	=====
Predictor	Beta	R2	<b>∆</b> R <sup>3</sup>
Intention to Stay	68	. 47	.47*
Intention to Stay * Unemployment Rate	58	.33	.33*
	======	======	=====

NOTE: \* p < .0001

This hypothesis was not supported. Unemployment rate did not enter as a significant predictor of perceived ease of movement when regression analysis was performed.

Additionally, Tables 7, 8, and 9 did not present a significant correlation between unemployment rate and perceived ease of movement for any of the sample groups (i.e., total sample, low attrition group, and high attrition group). This finding did not agree with earlier research conducted by Gerhart (1990), March and Simon (1958), and Mobley et al. (1979). These researchers found that unemployment rates, as measured by the availability of alternatives, were significant predictors of perceived ease of movement.

#### Test of Hypothesis 4

Hypothesis 4 predicted that cognitive ability

(i.e., skill) would be positively related to perceived ease
of movement. Tables 7, 8, and 9 revealed that no
significant correlation existed between cognitive ability
and perceived ease of movement for the total sample, the low
attrition group, and the high attrition group. Likewise,
when regression analysis was performed, cognitive ability
did not enter as a significant predictor of perceived ease
of movement. This result did not agree with earlier
research performed by Gerhart (1990) and Hulin et al.

(1985). According to these researchers, a person's skill

level affects his or her perception about transitioning from one job to another job.

## Test of Hypothesis 5

Hypothesis 5 predicted that perceived ease of movement would be inversely related to the intention to stay. Table 11 presents a significant inverse relationship between perceived ease of movement and intention to stay. Regression analysis showed that perceived ease of movement did enter as a significant predictor of intention to stay  $(4R^2 = .11, p < .0001)$ . Tables 7, 8, and 9 also depicted a significant correlation between these two variables for the total sample, low attrition group, and high attrition group, respectively. This finding was consistent with predictions based on Gerhart's (1990) turnover model (See Figure 4) and was consistent with the turnover model proposed in Figure 5.

#### Test of Hypothesis 6

Hypothesis 6 predicted that tenure would be positively related to the intention to stay. A nonsignificant correlation between tenure and intention to stay was obtained for the total sample, low attrition group, and high attrition group. Moreover, regression analysis revealed that tenure did not enter as a significant predictor of intention to stay. The failure to support this hypothesis tended to contradict Gerhart's (1990) turnover model which suggested that a significant positive relationship between tenure and intention to stay is to be expected.

TABLE 11 Results of Regression Analysis Predicting Intention to Stay

Predictor	Beta	R <sup>2</sup>	4 R <sup>2</sup>				
Perceived Ease of Movement	34	.11	.11*				
=======================================	=======================================	======	=======				
Note: * p < .0001							

## Test of Hypothesis 7

Hypothesis 7 predicted that tenure would be negatively related to voluntary turnover. This hypothesis was not supported. Tenure did not enter as a significant predictor of voluntary turnover when regression analysis was performed. Additionally, Tables 7, 8, and 9 did not present a significant correlation between tenure and voluntary turnover for the total sample, low attrition group, and high attrition group. This finding was incongruent with Gerhart's (1990) research suggesting that tenure has a direct effect on turnover.

# V. Discussion and Recommendations

The current study examined hypotheses derived from a proposed turnover model (i.e., Figure 5). The proposed model was based on the turnover models of March and Simon (1958), Mobley et al. (1979), and Gerhart (1990). The intent of this study was to evaluate a turnover model that incorporated both general labor market conditions and labor market perceptions because to date, there is only one study that examines both of these types of factors (Gerhart, 1990) simultaneously. Seven hypotheses were derived from the proposed turnover model illustrated in Figure 5. Only one of the seven hypotheses was supported. Little support for the model was forthcoming.

# Analysis of Proposed Model

Hypothesis 5 which predicted that perceived ease of movement would be inversely related to intention to stay was the only hypothesis supported. This finding was consistent with Gerhart's (1990) model and the turnover model proposed in Figure 5. Additionally, this finding was well documented by earlier research (March & Simon, 1958; and Mobley et al., 1979) confirming that as a person's perception about the ease of job movement increases, her or his intention to stay with the organization may decrease.

Six hypotheses were not supported. Specifically, regional unemployment rate did not have a direct effect on turnover. Moreover, unemployment rate did not moderate the

relationship between intention to stay and turnover.

Neither regional unemployment nor cognitive ability were related to perceived ease of movement. Finally, tenure was not significantly correlated with either intention to stay or turnover. Although not hypothesized, intention to stay was found to be the strongest predictor of turnover. This was consistent with the turnover model proposed in Figure 5, and earlier research findings (Steel & Ovalle, 1984).

Overall, the model was not supported.

## Comparison of Present Findings with Gerhart's (1990) Model

The proposed model illustrated in Figure 5 was a slightly modified version of Gerhart's (1990) turnover model illustrated in Figure 4. Gerhart's (1990) model was based on the turnover models of March and Simon (1958) and Mobley et al. (1979). Gerhart (1990) proposed the first voluntary turnover model that included both general labor market conditions and labor market perceptions. Until now, his model has not been tested.

The current study did not support Gerhart's (1990) inclusion of both general labor market conditions and labor market perceptions in predicting turnover. There was no evidence of support for a direct effect of unemployment rate on turnover. Unemployment rate was not even found to mediate the relationship between intention to stay and turnover. Additionally, there was no correlation between unemployment rate and perceived ease of movement. All of these findings

were inconsistent with the many studies suggesting significant relationships between general labor market conditions and turnover (Steel & Griffeth, 1989; March & Simon, 1958; Mobley et al., 1979; Michaels & Spector, 1982; and Muchinsky & Morrow, 1980).

Similar to the Gerhart (1990) model, intention to stay did significantly predict turnover. This finding was consistent with the Mobley et al. (1979) model, and the meta-analysis conducted by Steel and Ovalle (1984). Likewise, perceived ease of movement significantly predicted both intention to stay and turnover. This finding supported Gerhart's (1990) model and agreed with the earlier research conducted by Mobley et al. (1979) which suggested that perceived ease of movement influences intention to leave and, in turn, turnover. However, research on the perceived alternative-turnover relationship has produced mixed results. For example, Steel and Griffeth (1989) confirmed through a meta-analysis of 21 studies that measures of perceived alternatives and turnover were weakly related, especially when single-item measures were used. As noted in Chapter 3, this study used a single-item measure of perceived alternatives.

Finally, in contrast to Gerhart's (1990) model, tenure did not affect turnover and cognitive ability did not affect perceived ease of movement.

## United States Air Force Recommendations

It is evident that the Air Force can not totally eliminate turnover, and it should not try to do so because positive consequences (e.g., elimination of inferior performers) can result from turnover. Therefore, the Air Force needs to effectively manage turnover so that the positive impacts of personnel attrition may be maximized and the negative impacts (e.g., high costs and loss of quality employees) may be minimized.

Specifically, the Air Force needs to continue effectively matching qualified enlisted personnel with appropriate jobs. According to McEvoy and Cascio (1985), realistic job previews (RJP) are a way to effectively manage turnover. Through RJP, accurate job information is conveyed to the prospective employee, thereby resulting in better job matching, increased job satisfaction, and lower turnover. The Air Force currently uses the Armed Services Vocational Aptitude Battery (ASVAB) questionnaire to identify occupational areas where a potential recruit is qualified. This questionnaire, however, does not guarantee an effective match between a recruit and a job. Instituting some type of RJP is a practical option that may help to reduce the Air Force's dysfunctional turnover.

Additionally, as the Air Force continues to allow voluntary separations to reduce its military force, it must provide compensation and benefits that are competitive with the compensation and benefits offered by the private sector

to retain high quality personnel. Retaining the "best" personnel is vital to the mission of the Air Force, especially as both its military force and budget continues to decline. Consequently, the Air Force must treat its personnel as the valuable resource that they are.

## Study Limitations

Like most studies, this study was not without its limitations.

The most important limitation of this study was the unavailability of the home addresses of the survey respondents. As noted in Chapter 3, this study used the current mailing addresses of the respondents (i.e., current duty station) at the time Flores (1984) administered her survey as the basis for assigning regional unemployment rates. However, it was not known where the personnel who separated from the Air Force decided to relocate.

Consequently, we were not certain that the respondents were appropriately matched to the correct regional unemployment rates.

Second, the majority of the data analyzed for this study was collected with a survey used by Flores (1984). As she noted in her study, "the reliability and validity of this type of one-item per measure survey is unknown, and reliability could not be estimated" (p. 68). Similarly, Steel and Griffeth (1989) urge caution in using single-item measures. "Besides frequently displaying poor reliability,

these types of measures also confound sources of itemspecific variance with sources of common variance" (Steel & Griffeth, 1989, p. 85).

Third, the sample selected for this study came from a relatively homogeneous population (i.e., Air Force enlistees). Steel et al. (1991) found that homogeneous sampling attenuates the correlations between perceived alternatives and turnover. However, the sampling strategy of this study attempted to achieve some measure of sample diversity by selecting participants who served in occupations with different retention rates in the Air Force.

Finally, as Hoene (1986) noted in his study, using a self-report survey may increase the presence of social desirability and method biases.

## Future Research

Based on the current study, the following recommendations suggest valuable areas of further research:

- 1. Conduct a new study using Flores' (1984) survey on a sample of Air Force enlistees and officers to individually test the methodological factors that Steel and Griffeth (1989) suggest may contribute to the weak correlation between perceived alternatives and turnover.
- 2. Explore the differences between functional and dysfunctional turnover and examine their effects on the Air Force organization.

3. Create and test a turnover model that incorporates the independent variables, performance and job satisfaction, to determine what type of personnel remain in/leave the Air Force.

# Appendix: Survey Questionnaire (Flores, 1984, pp. 69-74)

- 001. What was your age on your last birthday?
  - 1. Less than 25
  - 2. 25-26
  - 27-28 3.
  - 29-30 4.
  - 5. 31-32
  - 6. 32-34
  - 7. Over 34
- 002. What is your current rank?
  - Airman Basic or Airman
  - Airman First Class 2.
  - Senior Airman or Sergeant
  - 4. Staff Sergeant
  - 5. Technical Sergeant
  - 6. Master Sergeant
  - Senior or Chief Master Sergeant 7.

Questions 003 through 005 involve identifying your current AFSC. Please read through the answers on questions 003, 004, and 005 and mark the appropriate answer by the appropriate question number.

- 1. 003. 113X0
  - 2. 242X0
  - 3. 302X1
  - 4. 341X4
  - 392X0
  - 5. 6. 552X4
  - 591X0 7.
- 004. 1. 611X0
  - 2. 622X0
  - 732X4 3.
  - 4. 733X1
  - 5. 734X0
  - 6. 751X2
  - 7. 751X3
- 005. 1. 753X1
  - 2. 903X1
  - 3. 925X0
  - 4. 99500
  - 5. 99501
  - 99504 6.

- 006. What is your skill level?
  - 1. 1
  - 2. 3
  - 3. 5
  - 4. 7
  - 5. 9
  - 6. 0
  - 7. Other
- 007. How much time have you spent on active duty in the military?
  - 1. Less than two years
  - 2. Two but less than four years
  - 3. Four but less than six years
  - 4. Six but less than eight years
  - 5. Eight but less than ten years
  - 6. Ten but less than twelve years
  - 7. Twelve years or more
- 008. How do you think the total package of military pay, allowances, and benefits compares with pay and benefits for civilian employment for similar work?
  - 1. Military compensation and benefits far exceed that of civilian employment.
  - 2. Military compensation and benefits slightly exceed that of civilian employment.
  - 3. Military compensation and benefits are about equal to that of civilian employment.
  - 4. Civilian compensation and benefits slightly exceed that of military compensation and benefits.
  - 5. Civilian compensation and benefits far exceed that of military compensation and benefits.
- 009. If you left the Air Force tomorrow, how easy would it be for you to get another job?
  - 1. Very easy
  - 2. Somewhat easy
  - 3. Neither easy nor difficult
  - 4. Somewhat difficult
  - 5. Very difficult

- 010. Which of the following best tells how you feel about a career in the Air Force?
  - 1. I definitely intend to remain with the Air Force.
  - 2. I probably will remain with the Air Force.
  - 3. I have not decided whether I will remain with the Air Force.
  - 4. I probably will not remain with the Air Force.
  - I definitely intend to separate from the Air Force.
- 011. Compared to other career fields, what do you feel is current demand for your occupation in civilian employment?
  - 1. Very good demand
  - 2. Good demand
  - 3. Average demand
  - 4. Poor demand
  - 5. Very poor demand
  - 6. No demand
- 012. How competitive do you feel you would be on the open job market? Evaluate your qualifications as they would compare with those of other candidates competing for civilian jobs in your field.
  - 1. I would be highly competitive.
  - 2. I would be moderately competitive.
  - 3. I would be somewhat competitive.
  - 4. I would be at a competitive disadvantage.
  - 5. I would be at a severe competitive disadvantage.
- 013. If you were to enter the civilian job market, how many organizations do you believe you would receive job offers from?
  - 1. None
  - 2. One or two
  - 3. Three or four
  - 4. Five or six
  - 5. Seven or eight
  - 6. Nine or ten
  - 7. Over ten
- 014. Do you feel your sense of accomplishment would be higher in civilian employment?
  - 1. Yes
  - 2. No

- 015. What is your impression of the impact of today's general economic conditions in relation to job hunting for your career specialty?
  - 1. Occupational demand for my specialty is insensitive to economic conditions.
  - Occupational demand for my specialty is somewhat sensitive to economic conditions. Job opportunities would not be plentiful, but I could still find the job I wanted in unfavorable economic conditions.
  - 3. I don't know what job hunting would be like in unfavorable economic conditions.
  - 4. Occupational demand for my specialty is sensitive to economic conditions. It would be difficult for me to find the job I wanted in unfavorable economic conditions.
  - 5. Occupational demand for my specialty is very sensitive to economic conditions. I doubt I could find the job I wanted in unfavorable economic conditions.
- 016. Within the past year, how many job offers or "feelers" (i.e., possible job opportunities) from the civilian job market have you received?
  - 1. None
  - 2. One or two
  - 3. Three or four
  - 4. Five or six
  - 5. Seven or eight
  - 6. Nine or ten
  - 7. Over ten
- 017. When do you plan to leave the service?
  - 1. I plan to leave the service immediately after my initial commitment.
  - 2. I plan to leave the service after one reenlistment.
  - 3. I plan to make the Air Force a career.
- 018. How easy would it be for you to get a job in a location where you would prefer to work?
  - 1. Very easy
  - 2. Somewhat easy
  - 3. Neither easy nor difficult
  - 4. Somewhat difficult
  - 5. Very difficult

- 019. When it comes to making <u>important</u> decisions, are you likely to be:
  - Highly impulsive in deciding to do what "strikes your fancy."
  - 2. Somewhat impulsive in deciding to do what "strikes your fancy."
  - 3. Somewhat knowledgeable of alternatives before deciding.
  - 4. Highly knowledgeable of alternatives before deciding.
- 020. How often would you say that you look at advertising in trade or professional journals, magazines, newspapers, etc., to find a civilian job in your current career field?
  - 1. I have never looked at advertisements for civilian jobs that are comparable to my current AFSC.
  - 2. I almost never look at advertisements for civilian jobs that are comparable to my current AFSC.
  - 3. I do not look very often at advertisements for civilian jobs that are comparable to my current AFSC.
  - 4. I often look at advertisements for civilian jobs that are comparable to my current AFSC.
  - 5. I do look very often at advertisements for civilian jobs that are comparable to my current AFSC.
  - 6. I almost always look at advertisements for civilian jobs that are comparable to my current AFSC.
  - 7. I always look at advertisements for civilian jobs that are comparable to my current AFSC.

For questions 021, 022, and 023 use the following scale to indicate how much you agree or disagree with each statement. Mark:

- 1. -if you strongly disagree
- 2. -if you disagree
- 3. -if you slightly disagree
- 4. -if you neither agree nor disagree
- 5. -if you slightly agree
- 6. -if you agree
- 7. -if you strongly agree
- 021. Opportunities such as cross-training into another AFSC or short-term career-broadening assignments are better alternatives than leaving the Air Force.
- 022. Family and/or friends openly encourage me to pursue a career in the Air Force.

- 023. Associations and working relationships with contractors contribute to my awareness of civilian job opportunities.
- 024. Do you intend to look for civilian employment during the coming year?
  - 1. Very unlikely
  - Somewhat unlikely
     Don't know

  - 4. Somewhat likely
  - 5. Very likely

THANK YOU FOR YOUR ASSISTANCE

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# **REPORT DOCUMENTATION PAGE**

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	September 1991	Master's Thesis					
A CROSS-SECTIONAL INVESTIGATION OF THE EFFECTS OF REGIONAL LABOR MARKET CONDITIONS ON THE REENLISTMENT DECISIONS OF AIR FORCE ENLISTEES  6. AUTHOR(S)							
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Approved for public	release; distribution		STRIBUTION CODE				
13. ABSTRACT (Maximum 200 words) A great deal of literature measuring the relationship between labor market perceptions and voluntary employee turnover exists. However, literature measuring the relationship between general labor market conditions and voluntary employee turnover is scarce. Moreover, to date only one article has included both labor market perceptions and general labor market conditions in testing a voluntary turnover model. This thesis provides a second test of a proposed voluntary turnover model that incorporates both labor market perceptions and general labor market conditions. Using survey data collected by Flores in 1984 and reenlistment data collected by Hoene in 1986, a cross-sectional investigation of the effects of general labor market conditions, as measured by regional unemployment rates, on the reenlistment decisions of first-term Air Force enlistees was conducted. Additionally, the effects of labor market perceptions, cognitive ability, and tenure on reenlistment decisions were examined. A model of voluntary employee turnover was developed and tested. One of seven hypotheses was supported, providing little support for the proposed model.  14. Subject Terms							
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